Leon Boegman

List of Publications by Year
in descending order

61 papers	2,148 citations	257450 24 h-index	233421 45 g-index
63 all docs	63 docs citations	63 times ranked	1472 citing authors

#	Article	IF	Citations
1	The degeneration of internal waves in lakes with sloping topography. Limnology and Oceanography, 2005, 50, 1620-1637.	3.1	182
2	Breaking of shoaling internal solitary waves. Journal of Fluid Mechanics, 2010, 659, 289-317.	3.4	136
3	Highâ€frequency internal waves in large stratified lakes. Limnology and Oceanography, 2003, 48, 895-919.	3.1	135
4	A diapycnal diffusivity model for stratified environmental flows. Dynamics of Atmospheres and Oceans, 2013, 61-62, 14-34.	1.8	129
5	Sediment Resuspension and Transport by Internal Solitary Waves. Annual Review of Fluid Mechanics, 2019, 51, 129-154.	25.0	108
6	Flow separation and resuspension beneath shoaling nonlinear internal waves. Journal of Geophysical Research, 2009, 114, .	3.3	93
7	A two-dimensional ecological model of Lake Erie: Application to estimate dreissenid impacts on large lake plankton populations. Ecological Modelling, 2008, 214, 219-241.	2.5	83
8	The energetics of large-scale internal wave degeneration in lakes. Journal of Fluid Mechanics, 2005, 531, 159-180.	3.4	79
9	Vertical mixing and weak stratification over zebra mussel colonies in western Lake Erie. Limnology and Oceanography, 2008, 53, 1093-1110.	3.1	76
10	Factors affecting the development and dynamics of hypoxia in a large shallow stratified lake: Hourly to seasonal patterns. Water Resources Research, 2013, 49, 2380-2394.	4.2	74
11	PoincarÃ© waveâ€“induced mixing in a large lake. Limnology and Oceanography, 2012, 57, 1201-1216.	3.1	68
12	Sediment resuspension mechanisms and their contributions to highâ€turbidity events in a large lake. Limnology and Oceanography, 2017, 62, 1045-1065.	3.1	66
13	Boundary-layer-separation-driven vortex shedding beneath internal solitary waves of depression. Journal of Fluid Mechanics, 2012, 690, 321-344.	3.4	58
14	â€œDead Zoneâ€•dynamics in Lake Erie: the importance of weather and sampling intensity for calculated hypolimnetic oxygen depletion rates. Aquatic Sciences, 2011, 73, 289-304.	1.5	56
15	Application of a two-dimensional hydrodynamic reservoir model to Lake Erie. Canadian Journal of Fisheries and Aquatic Sciences, 2001, 58, 858-869.	1.4	42
16	Experimental investigation of sediment resuspension beneath internal solitary waves of depression. Journal of Geophysical Research: Oceans, 2015, 120, 3301-3314.	2.6	42
17	Classification of internal solitary wave breaking over a slope. Physical Review Fluids, 2019, 4, .	2.5	41
18	Spatial distributions of external and internal phosphorus loads in Lake Erie and their impacts on phytoplankton and water quality. Journal of Great Lakes Research, 2016, 42, 1212-1227.	1.9	37

#	Article	IF	Citations
19	A framework for ensemble modelling of climate change impacts on lakes worldwide: the ISIMIP Lake Sector. Geoscientific Model Development, 2022, 15, 4597-4623.	3.6	37
20	Threeâ€dimensional simulation of lake and ice dynamics during winter. Limnology and Oceanography, 2012, 57, 43-57.	3.1	36
21	Spatial-Dynamic Modeling of Algal Biomass in Lake Erie: Relative Impacts of Dreissenid Mussels and Nutrient Loads. Journal of Environmental Engineering, ASCE, 2008, 134, 456-468.	1.4	34
22	Dreissenids in Lake Erie: an algal filter or a fertilizer?. Aquatic Invasions, 2011, 6, 175-194.	1.6	32
23	Nearâ€inertial waves in <scp>L</scp>ake <scp>E</scp>rie. Limnology and Oceanography, 2015, 60, 1522-1535.	3.1	30
24	Threeâ€dimensional simulation of highâ€frequency nonlinear internal wave dynamics in <scp>C</scp>ayuga <scp>L</scp>ake. Journal of Geophysical Research: Oceans, 2017, 122, 2183-2204.	2.6	27
25	Episodic hypoxia in the western basin of Lake Erie. Limnology and Oceanography, 2019, 64, 2220-2236.	3.1	27
26	Parameterization of bottom mixed layer and logarithmic layer heights in central Lake Erie. Journal of Great Lakes Research, 2015, 41, 707-718.	1.9	26
27	Largeâ€eddy simulation of oxygen transfer to organic sediment beds. Journal of Geophysical Research, 2012, 117, .	3.3	23
28	Internal hydraulic jumps in a long narrow lake. Limnology and Oceanography, 2013, 58, 153-172.	3.1	22
29	Offshore wind farm impacts on surface waves and circulation in Eastern Lake Ontario. Coastal Engineering, 2014, 93, 32-39.	4.0	22
30	High-Schmidt-number mass transport mechanisms from a turbulent flow to absorbing sediments. Physics of Fluids, 2012, 24, 085103.	4.0	21
31	Physical processes affecting water quality in Hamilton Harbour. Aquatic Ecosystem Health and Management, 2016, 19, 114-123.	0.6	19
32	Increases in Great Lake winds and extreme events facilitate interbasin coupling and reduce water quality in Lake Erie. Scientific Reports, 2021, 11, 5733.	3.3	19
33	Largeâ€eddy simulation and lowâ€order modeling of sedimentâ€oxygen uptake in a transitional oscillatory flow. Journal of Geophysical Research: Oceans, 2013, 118, 1926-1939.	2.6	17
34	The dynamics of internal wave resonance in periodically forced narrow basins. Journal of Geophysical Research, 2012, 117, .	3.3	16
35	One-dimensional simulation of lake and ice dynamics during winter. Journal of Limnology, 2014, 73, .	1.1	16
36	A perspective on needed research, modeling, and management approaches that can enhance Great Lakes fisheries management under changing ecosystem conditions. Journal of Great Lakes Research, 2016, 42, 743-752.	1.9	16

#	Article	IF	Citations
37	Impacts of hydrodynamics and benthic communities on phytoplankton distributions in a large, dreissenid-colonized lake (Lake Simcoe, Ontario, Canada). Inland Waters, 2013, 3, 269-284.	2.2	15
38	Near-inertial wave driven dissolved oxygen transfer through the thermocline of a large lake. Journal of Great Lakes Research, 2014, 40, 300-307.	1.9	15
39	3D modelling of dreissenid mussel impacts on phytoplankton in a large lake supports the nearshore shunt hypothesis and the importance of wind-driven hydrodynamics. Aquatic Sciences, 2015, 77, 95-114.	1.5	14
40	Hydrodynamic modeling of Edmonton storm-water ponds. Environmental Fluid Mechanics, 2019, 19, 305-327.	1.6	14
41	Three-dimensional modeling of sediment resuspension in a large shallow lake. Journal of Great Lakes Research, 2021, 47, 970-984.	1.9	14
42	Modeling surface waves and wind-driven circulation in eastern Lake Ontario during winter storms. Journal of Great Lakes Research, 2014, 40, 130-142.	1.9	13
43	A model of the three-dimensional hydrodynamics, transport and flushing in the Bay of Quinte. Journal of Great Lakes Research, 2015, 41, 536-548.	1.9	13
44	Evaluation of the structure function method to compute turbulent dissipation within boundary layers using numerical simulations. Journal of Geophysical Research: Oceans, 2016, 121, 5888-5897.	2.6	13
45	Breaking of Internal Kelvin Waves Shoaling on a Slope. Journal of Geophysical Research: Oceans, 2020, 125, e2020JC016120.	2.6	13
46	Characterizing spatial and temporal distributions of turbulent mixing and dissipation in Lake Erie. Journal of Great Lakes Research, 2021, 47, 168-179.	1.9	13
47	Dissipation of Turbulent Kinetic Energy in the Oscillating Bottom Boundary Layer of a Large Shallow Lake. Journal of Atmospheric and Oceanic Technology, 2020, 37, 517-531.	1.3	12
48	Evaluation of the inertial dissipation method within boundary layers using numerical simulations. Geophysical Research Letters, 2015, 42, 1504-1511.	4.0	11
49	Three-dimensional biogeochemical modeling of eutrophication in Edmonton stormwater ponds. Ecological Modelling, 2021, 456, 109684.	2.5	8
50	Turnover in a small Canadian shield lake. Limnology and Oceanography, 2021, 66, 3356-3373.	3.1	7
51	Empirical modeling of hypolimnion and sediment oxygen demand in temperate Canadian lakes. Inland Waters, 0, , 1-17.	2.2	6
52	Parameterization of oscillating boundary layers in lakes and coastal oceans. Ocean Modelling, 2021, 160, 101780.	2.4	4
53	An automatic lake-model application using near-real-time data forcing: development of an operational forecast workflow (COASTLINES) for Lake Erie. Geoscientific Model Development, 2022, 15, 1331-1353.	3.6	4
54	Bolus formation from fission of nonlinear internal waves over a mild slope. Journal of Fluid Mechanics, 2022, 932, .	3.4	4

#	Article	IF	Citations
55	Internal solitary wave bottom boundary layer dissipation. Physical Review Fluids, 2021, 6, .	2.5	3
56	Self-similar decay and mixing of a high-Schmidt-number passive scalar in an oscillating boundary layer in the intermittently turbulent regime. Journal of Fluid Mechanics, 2013, 726, 338-370.	3.4	2
57	Currents in Stratified Water Bodies: Internal Waves. , 2021, , .		2
58	Three-dimensional numerical simulation of basin-scale internal waves in a long narrow lake. Environmental Fluid Mechanics, 0, , .	1.6	1
59	Physical processes and water quality in natural waters. Water Quality Research Journal of Canada, 2012, 47, 197-197.	2.7	0
60	Transport of municipal wastewater, industrial and tributary discharges in eastern Lake Ontario and upper St. Lawrence River during the ice-free period of 2006. Journal of Great Lakes Research, 2015, 41, 549-559.	1.9	0
61	Simulated impacts of climate change on Lake Simcoe water quality. Inland Waters, 0, , 1-17.	2.2	0